Applicant: Khai Hee Kwan **Examiner:** Shahid R. Merch **Title:** Method, apparatus and program for user to determine the

ownership cost of a motor vehicle.

CLAIMS

1. (Currently Amended) A method for determining vehicle option <u>premium to purchase</u> or sale a new vehicle over a network connected to a central controller and a plurality of terminals, comprising the steps:

providing a vehicle manufacturer system linked to said network;

receiving over said network at said central controller, vehicle pricing information comprising first data representative of time to delivery of said new vehicle, a second data representative of a delivery destination of said new vehicle and third data representative of a price said user is willing to pay for said new vehicle;

in response to vehicle pricing information received from user relative to the future purchase or sell of a vehicle;

calculating <u>at said central controller</u> the vehicle option premium based on <u>said first data</u> <u>and said third data; vehicle pricing information;</u>

outputting the vehicle option premium to the user for decision over said network; and

upon acceptance by said user of said vehicle option premium at said central controller, performing a payment transaction for said premium or a deposit over said network; and

creating a vehicle option contract to lock in said third data. -.

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if user accepts the vehicle option premium offered, perform a payment transaction else suggest user to revise pricing information or terminate.

2. (Currently Amended) The method according to claim 1, whereby <u>said calculating is</u> <u>using binomial option pricing model.</u> <u>vehicle pricing information comprising at least one</u> of the first information concerning period to purchase or sell, second information concerning vehicle price at purchase or sell, third information concerning type of vehicle and fourth information concerning type of transaction comprising sell of vehicle or purchase of vehicle; and

wherein said calculating step includes utilising at least one of the said information.

3. (Currently Amended) The method according to claim 1, wherein for <u>purchase said</u> calculating step the vehicle option <u>premium</u> is based at least in part on <u>the formula</u>:

Vehicle option premium = B*D*L*V

B represents-a base value, D is factor <u>relating related</u> to <u>the a period</u> before delivery date, V is factor <u>relating related</u> to <u>the a historical volatility of prices for the motor new</u> vehicle <u>prices</u> and

L is factor related to the expected interest in the motor new vehicle.

4. (Currently Amended) The method according to claim 1, wherein for the calculating step for the vehicle option premium is based on a modified Black Scholes consisting:

$$Xe^{-rT}N(-d_2) - SN(-d_1)$$

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Where **S** represents a current price of new vehicle,

N() represents an area under the normal curve,

X represents said price the user is willing to pay for said new vehicle,

r represents a risk-free interest rate,

T represents said time to delivery of said new vehicle,

σ represents a volatility of the new vehicle logarithmic price,

$$\underline{d_2} = \underline{d_1} - \sigma T^{1/2}$$
 and $\underline{d_1} = [\ln(S/X) + (r + \sigma^2/2) T] / \sigma T^{1/2}$.

selling back calculating step the vehicle option is based at least in part on the formula:

Vehicle option premium = B*E*A* AH*TY*OD*CD

B represents a base value, E represents a factor related to the number of driving years of the person who normally will be using this motor vehicle, A representing a factor related to the age of the person who is normally driving the motor vehicle, AH represents a factor to the reported accident history of the driver who normally drives the motor vehicle, TY represents a factor to the type of vehicle being sold, OD represents a factor related to the odometer reading in the motor vehicle at the time of sale, CD represents a factor related to the physical condition of the motor vehicle at the time of sale.

5. (Currently Amended) The method according to claim 1, further comprising the steps of:

receiving an indication that a user has purchased the vehicle option;

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updating a customer database to record the sale or purchase of the vehicle option; and posting transaction details accessible by all users.

6. (Currently Amended) The method according to claim 1, wherein a purchase_further comprising the steps of:

receiving a user's request to purchase a vehicle utilising user's vehicle option;

verifying the validity of the vehicle option; and

if verified ask user to perform_ performing a payment transaction to pay the vehicle price; and

updating the a database to reflect the vehicle option is used.

7. (Currently Amended) The method according to claim 1, wherein a sell_further comprising the steps of:

receiving a user's request to sell vehicle using user's vehicle option;

verifying the validity of the vehicle option; and

if verified ask counter-party to perform performing a payment transaction to pay the vehicle_price; and

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updating the a database to reflect the vehicle option is used.

8. (Currently Amended) A computer program product for use in a system having at least one client workstation and one network server coupled to said network environment, wherein said network environment is a distributed hypermedia environment, the computer program product comprising:

a computer usable medium having computer readable program code physically embodied therein, said computer program product further comprising:

computer readable program code implementing the method of claim 1.

9. (Currently Amended) A computer program product for use in a system having at least one client workstation and one network server coupled to said network environment, wherein said network environment is a distributed hypermedia environment, the computer program product comprising:

a computer usable medium having computer readable program code physically embodied therein, said computer program product further comprising:

computer readable program code implementing the method of claim 2.

10. (Currently Amended) A computer program product for use in a system having at least one client workstation and one network server coupled to said network environment, wherein said network environment is a distributed hypermedia environment, the computer program product comprising:

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a computer usable medium having computer readable program code physically embodied therein, said computer program product further comprising:

computer readable program code implementing the method of claim 3.

11. (Currently Amended) A computer program product for use in a system having at least one client workstation and one network server coupled to said network environment, wherein said network environment is a distributed hypermedia environment, the computer program product comprising:

a computer usable medium having computer readable program code physically embodied therein, said computer program product further comprising:

computer readable program code implementing the method of claim 4.

12. (Currently Amended) A computer program product for use in a system having at least one client workstation and one network server coupled to said network environment, wherein said network environment is a distributed hypermedia environment, the computer program product comprising:

a computer usable medium having computer readable program code physically embodied therein, said computer program product further comprising:

computer readable program code implementing the method of claim 5_.

13. (Currently Amended) A computer program product for use in a system having at least one client workstation and one network server coupled to said network environment, wherein said network environment is a distributed hypermedia environment, the computer program product comprising:

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a computer usable medium having computer readable program code physically embodied therein, said computer program product further comprising:

computer readable program code implementing the method of claim 6.

14. (Currently Amended) A computer program product for use in a system having at least one client workstation and one network server coupled to said network environment, wherein said network environment is a distributed hypermedia environment, the computer program product comprising:

a computer usable medium having computer readable program code physically embodied therein, said computer program product further comprising:

computer readable program code implementing the method of claim 7.

- 15. (Original) A computer system having at least one client workstation and one network server coupled to said network environment, wherein said network environment is a distributed hypermedia environment, the computer implementing the method of claim 1.
- 16. (Original) A computer system having at least one client workstation and one network server coupled to said network environment, wherein said network environment is a distributed hypermedia environment, the computer implementing the method of claim 2.
- 17. (Original) A computer system having at least one client workstation and one network server coupled to said network environment, wherein said network environment is a distributed hypermedia environment, the computer implementing the method of claim 3.

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18. (Original) A computer system having at least one client workstation and one network server coupled to said network environment, wherein said network environment is a distributed hypermedia environment, the computer implementing the method of claim 4.

- 19. (Original) A computer system having at least one client workstation and one network server coupled to said network environment, wherein said network environment is a distributed hypermedia environment, the computer implementing the method of claim 6.
- 20. (Original) A computer system having at least one client workstation and one network server coupled to said network environment, wherein said network environment is a distributed hypermedia environment, the computer implementing the method of claim 7.